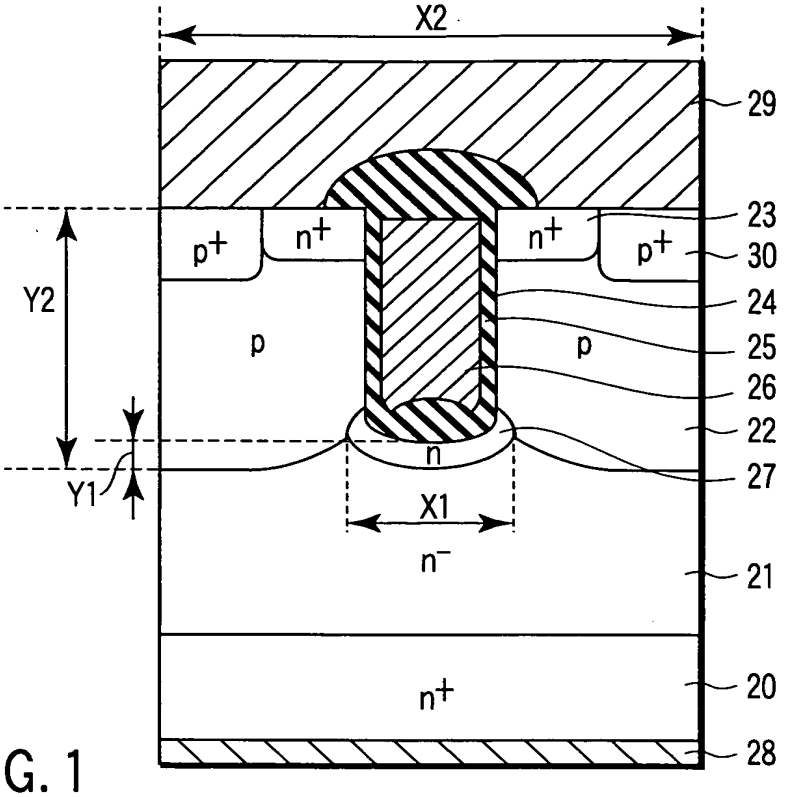
X2
29
23
p+
n+
n+
p+
30
Y2
24
p
p
25
26
22
n
27
Y1
X1
n−
21
n+
20
28

FIG. 1

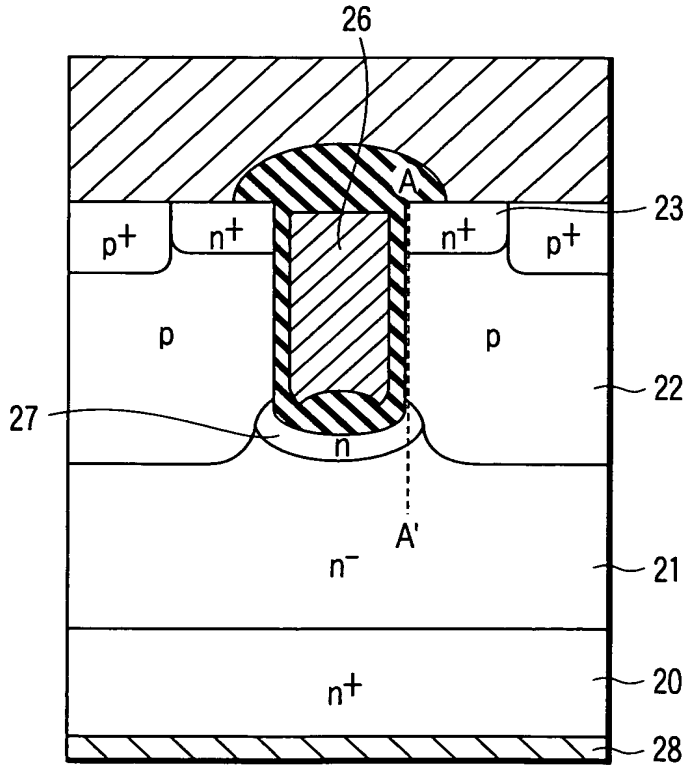
26
A
23
p+
n+
n+
p+
p
p
22
27
n
A'
n−
21
n+
20
28

FIG. 2

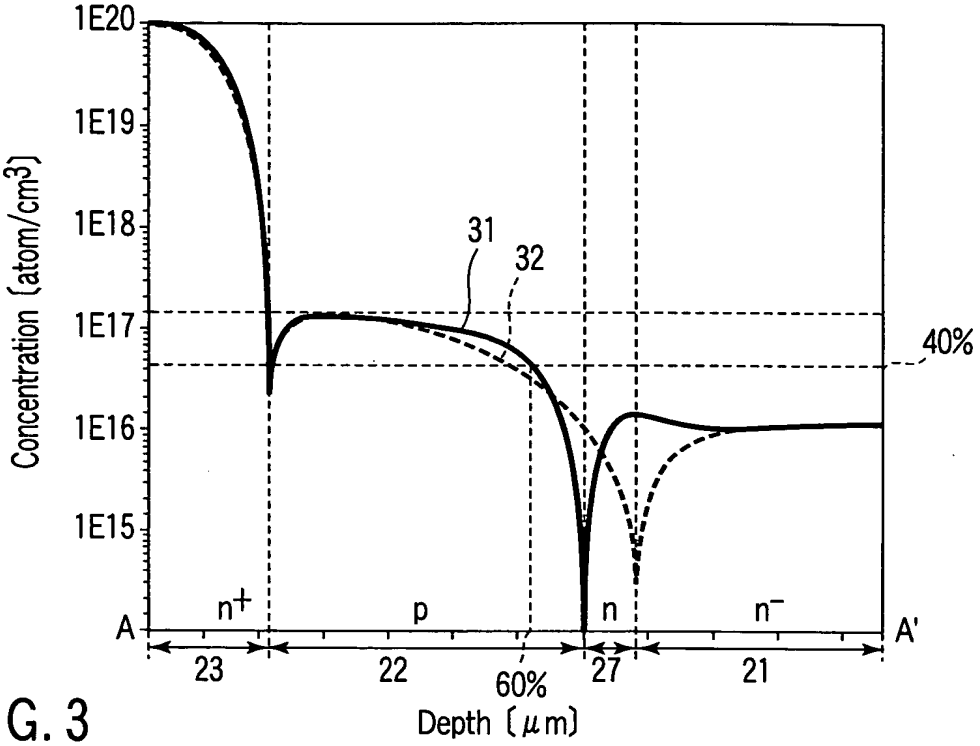
1E20
1E19
1E18
1E17
1E16
1E15
Concentration (atom/cm3)
31
32
40%
A
n+
p
n
n−
A'
23
22
60%
27
21
Depth (μm)

FIG. 3

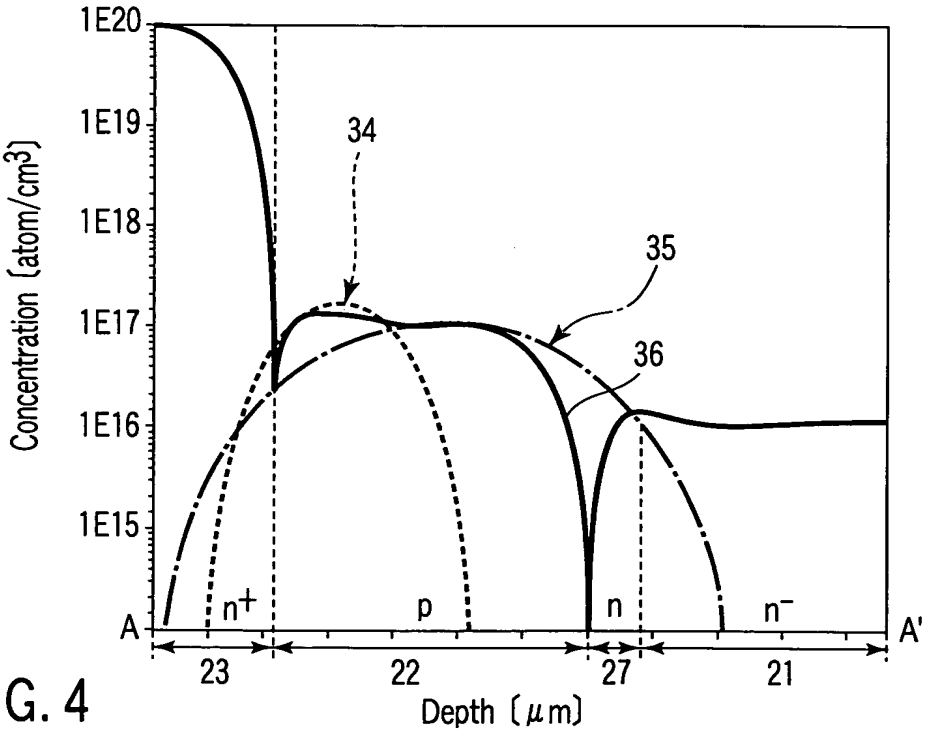
1E20
1E19
1E18
1E17
1E16
1E15
Concentration (atom/cm3)
34
35
36
A
n+
p
n
n−
A'
23
22
27
21
Depth (μm)

FIG. 4

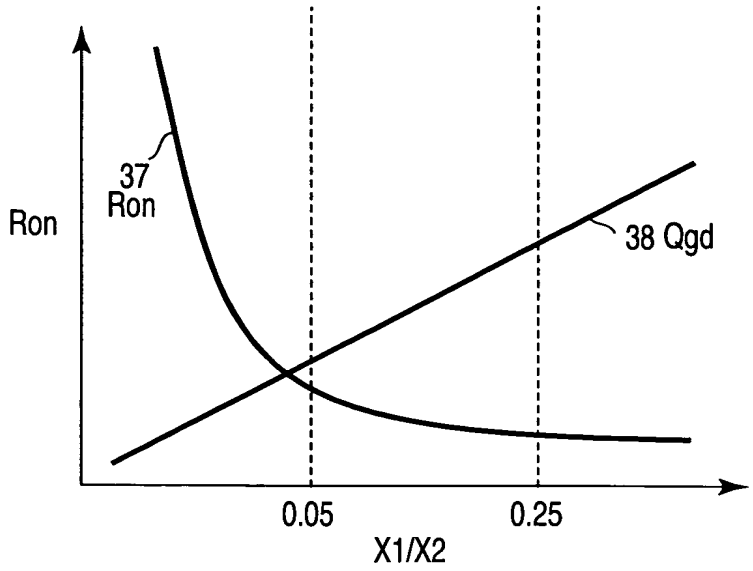

FIG. 5

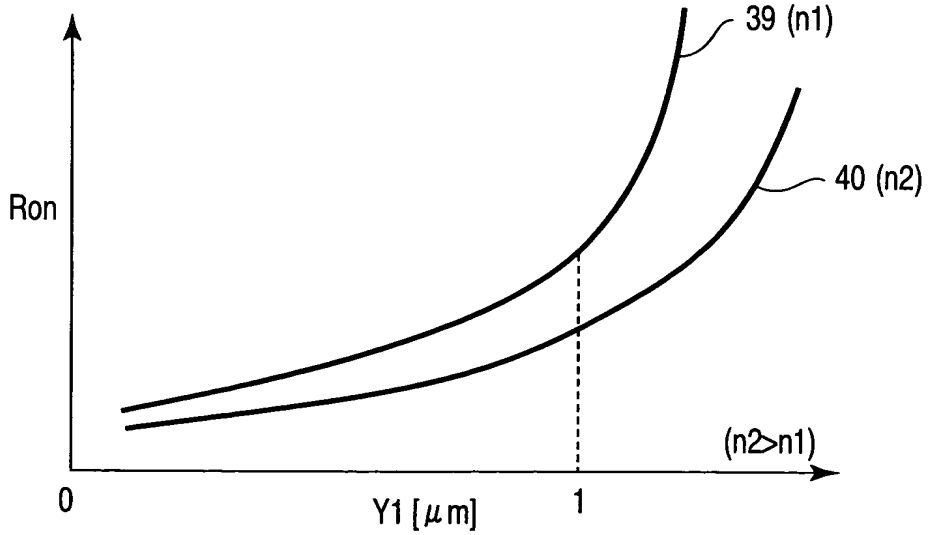

FIG. 6

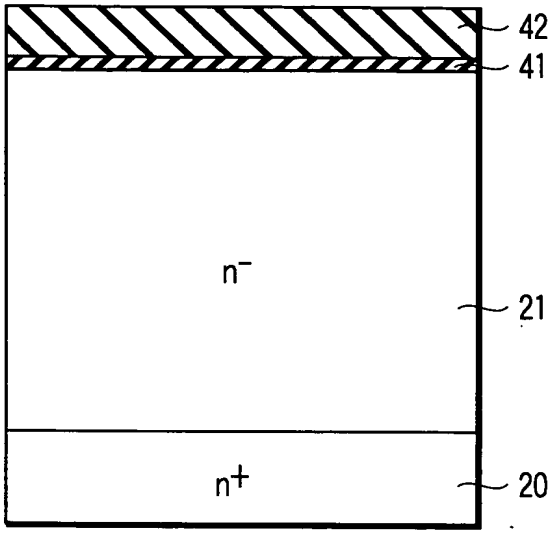

FIG. 7

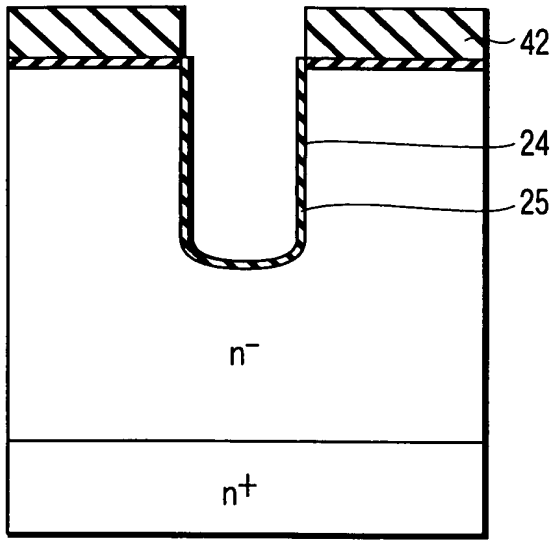

FIG. 8

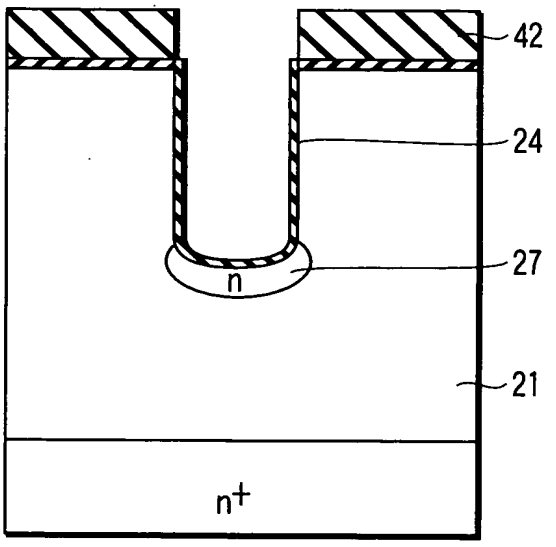

FIG. 9

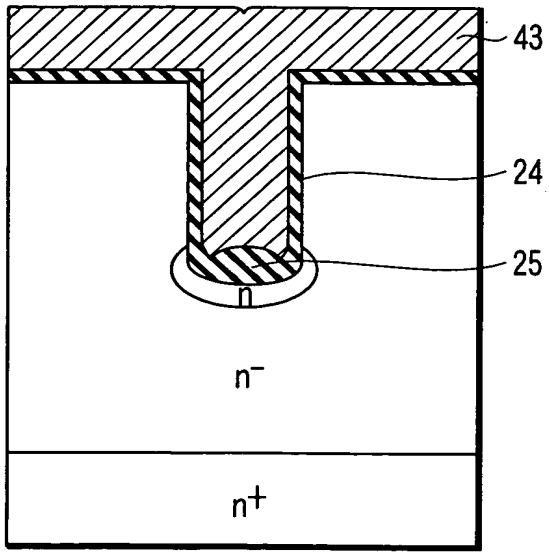

FIG. 10

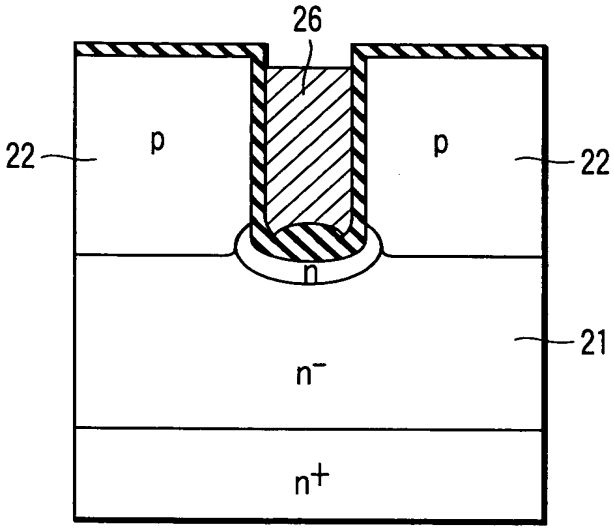

FIG. 11

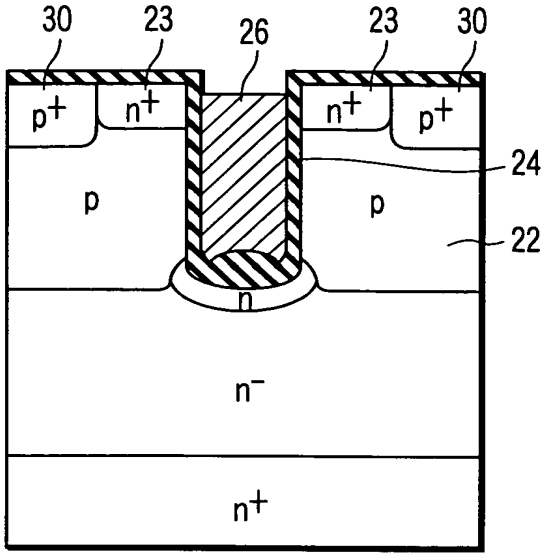

FIG. 12

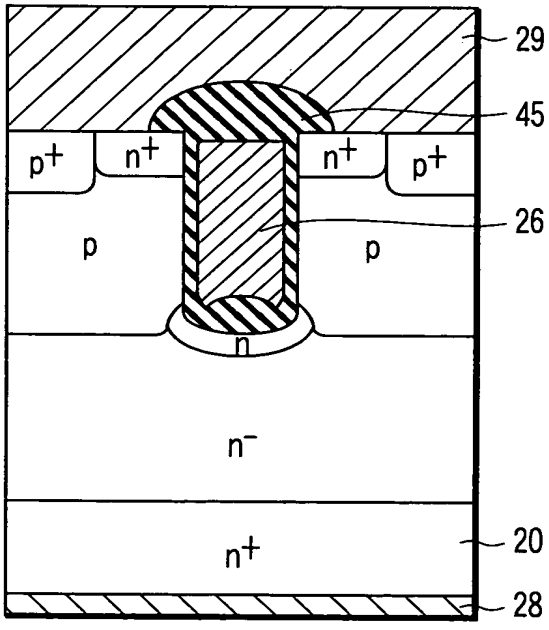

FIG. 13

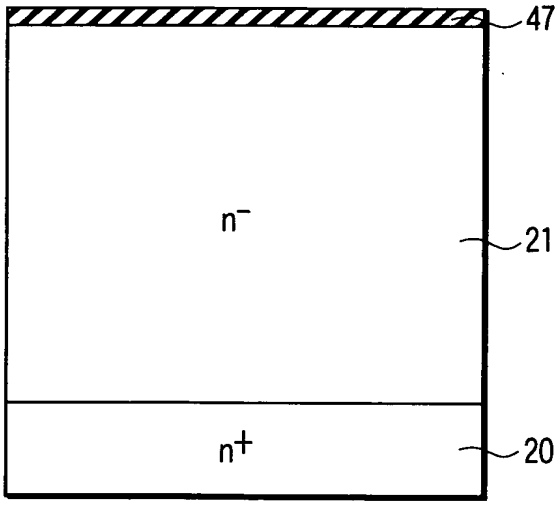

FIG. 14

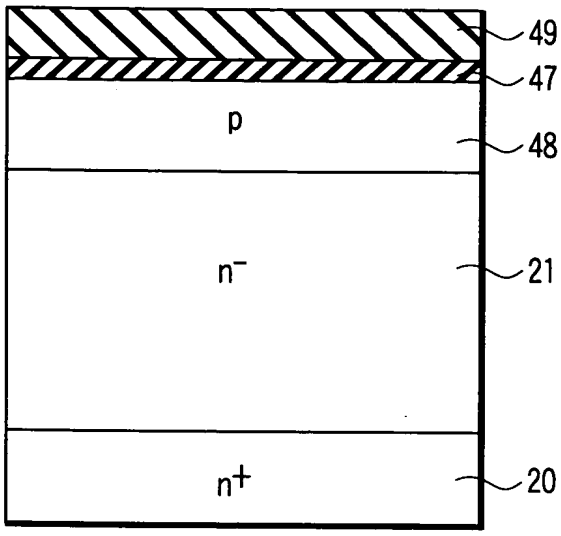

FIG. 15

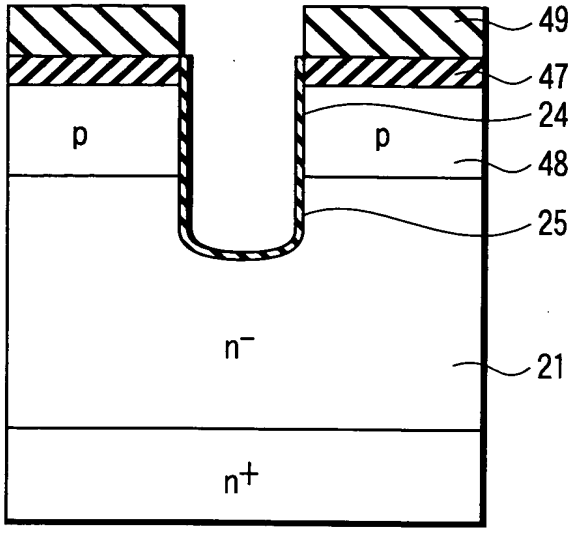

FIG. 16

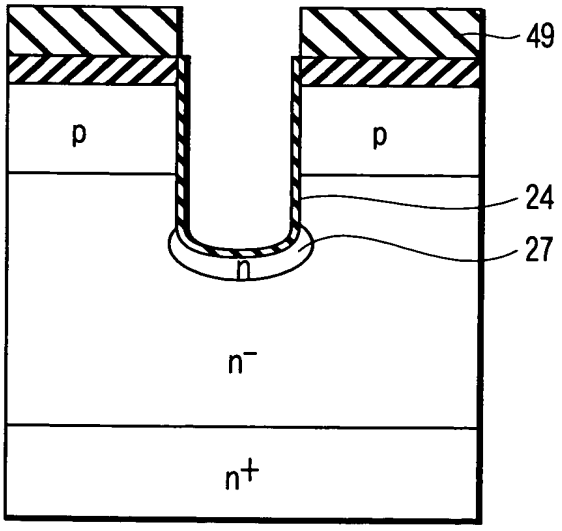

FIG. 17

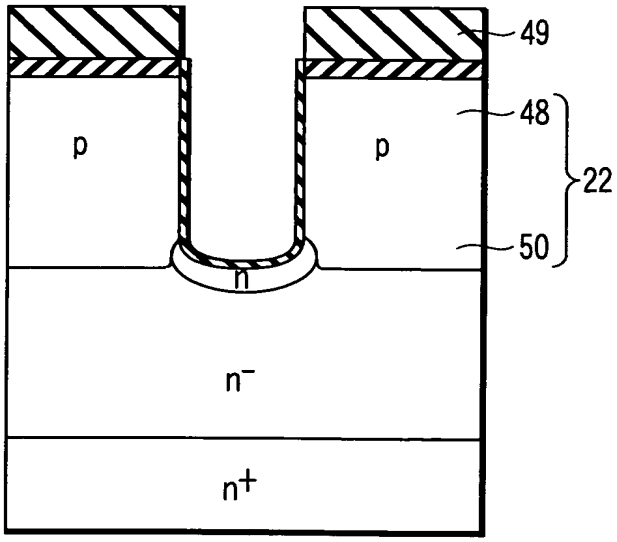

FIG. 18

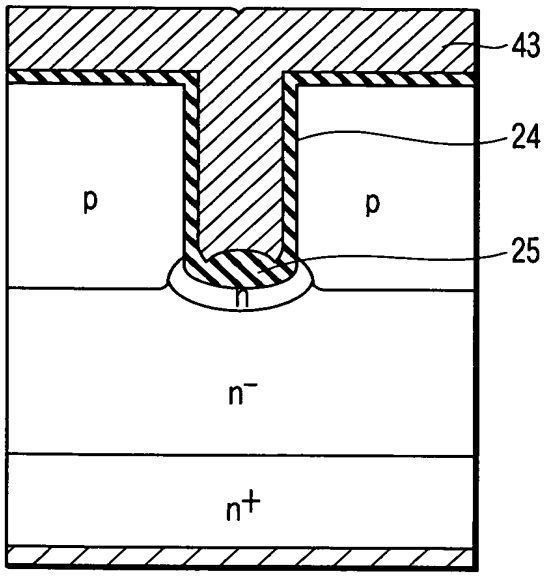

FIG. 19

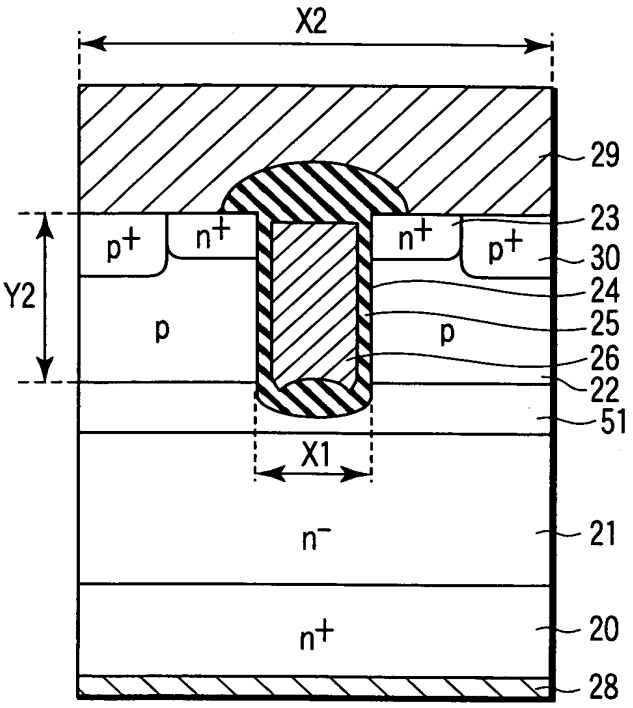

FIG. 20

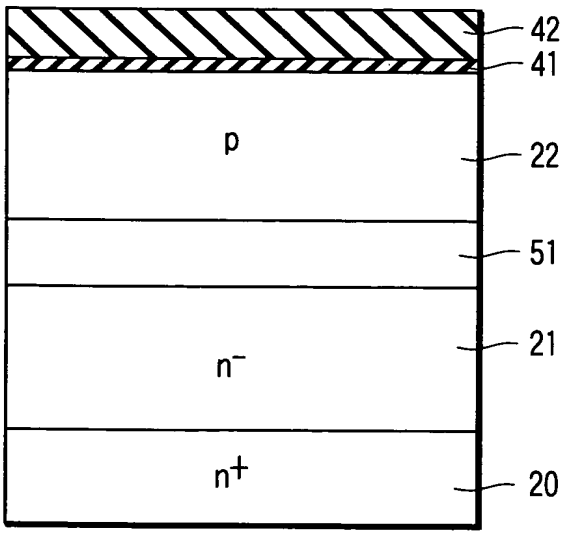

FIG. 21

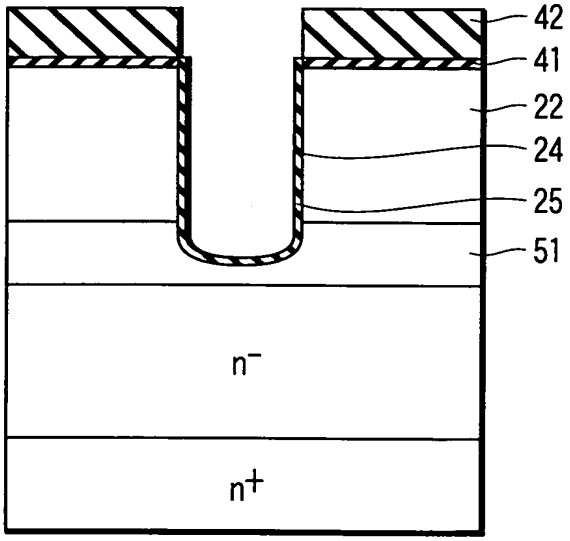

FIG. 22

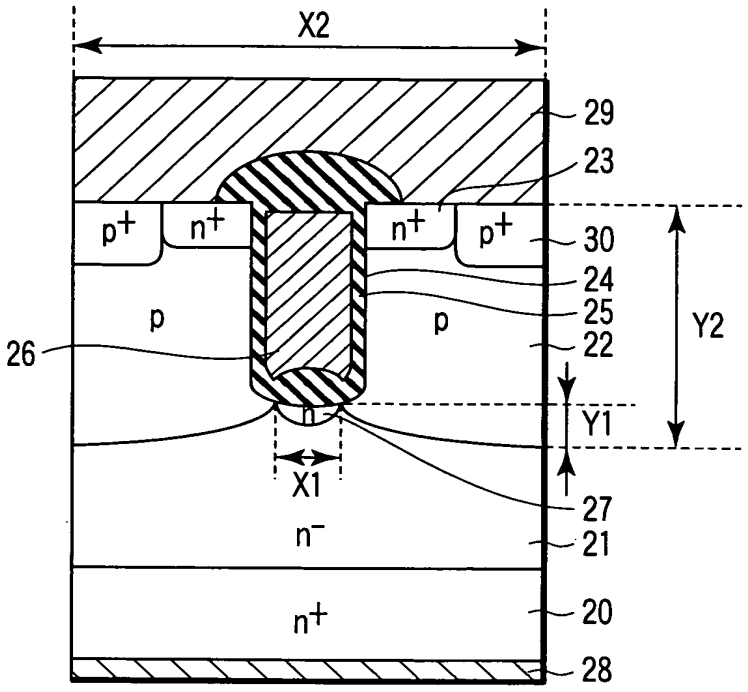
X2
29
23
p+
n+
n+
p+
30
24
25
22
p
p
26
Y2
Y1
n
X1
27
n−
21
n+
20
28

FIG. 23

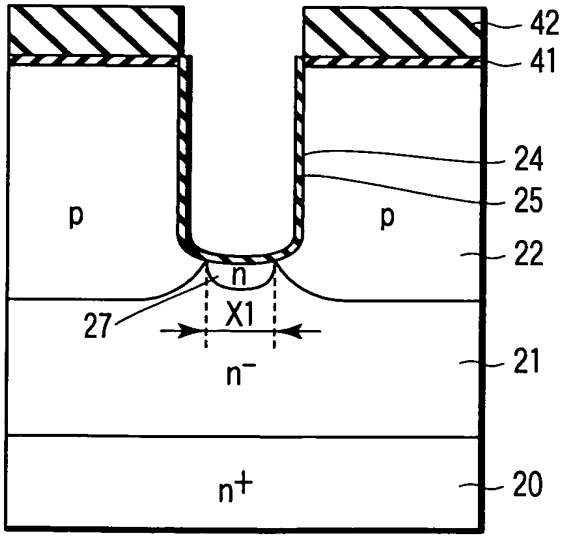
42
41
24
25
p
p
22
n
27
X1
n−
21
n+
20

FIG. 24

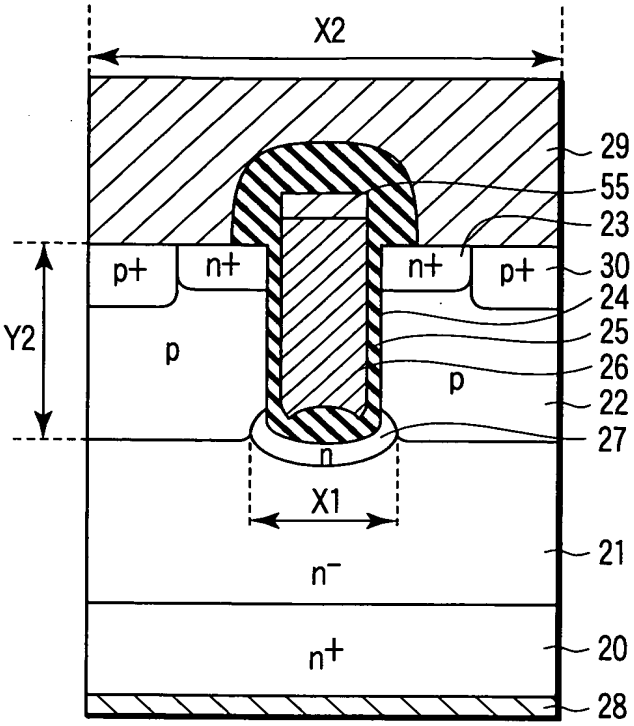
X2
29
55
23
p+
n+
n+
p+
30
24
25
26
22
27
Y2
p
p
n
X1
21
n⁻
n+
20
28

FIG. 25

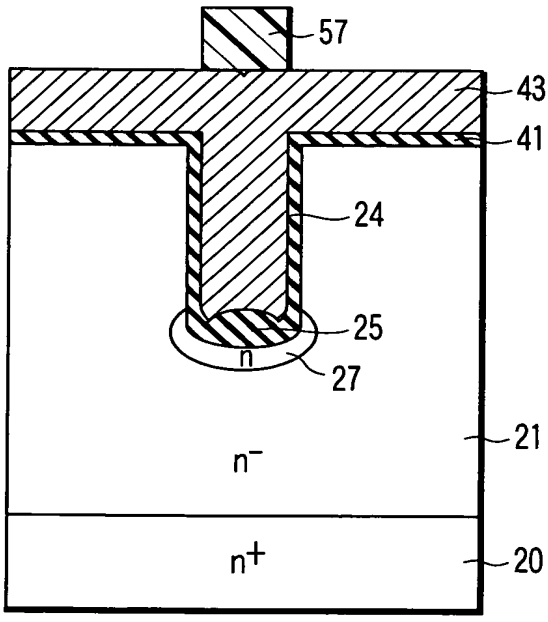
57
43
41
24
25
n
27
21
n⁻
n+
20

FIG. 26

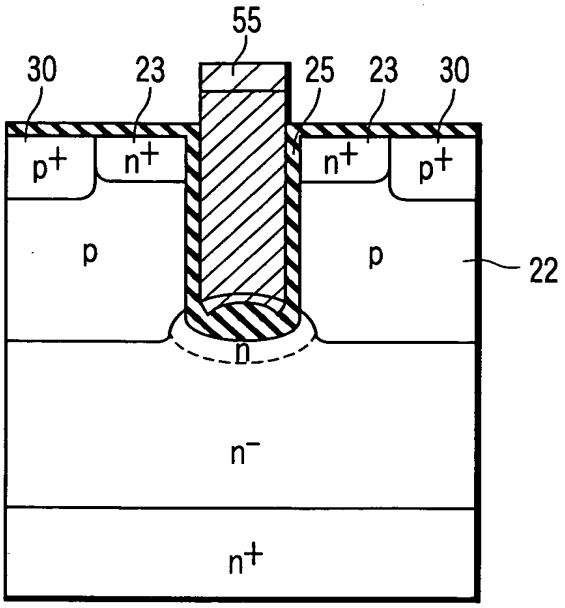
55
30
23
25
23
30
p+
n+
n+
p+
p
p
22
D
n−
n+

FIG. 27

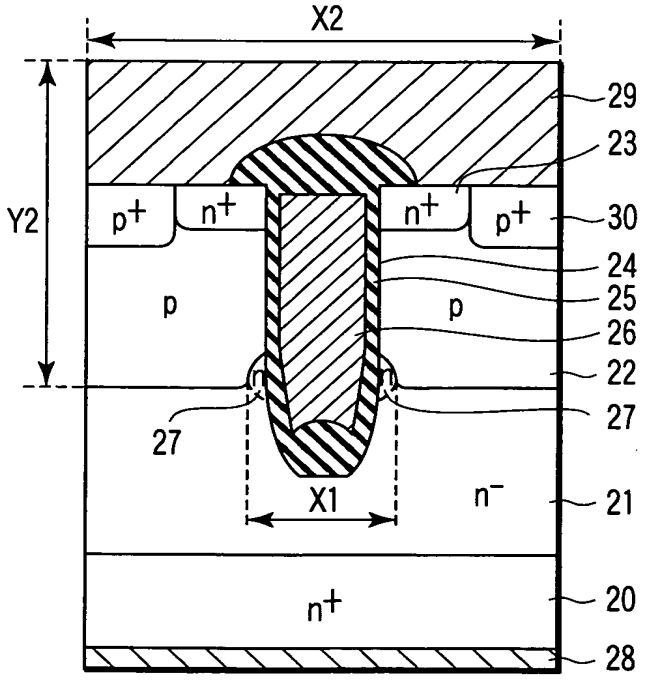
X2
Y2
29
23
p+
n+
n+
p+
30
24
25
p
p
26
22
27
27
X1
n−
21
n+
20
28

FIG. 28

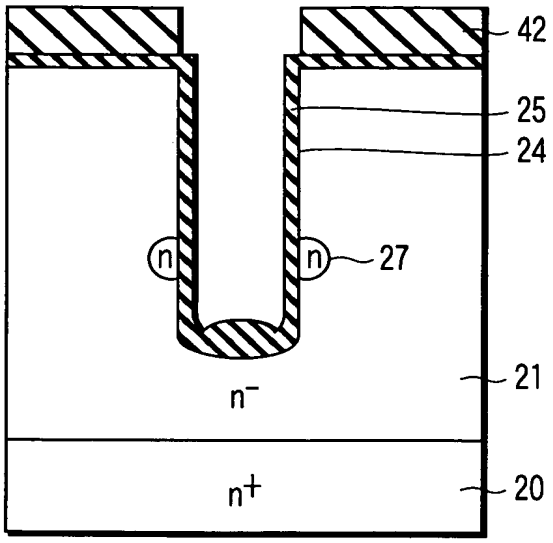

FIG. 29

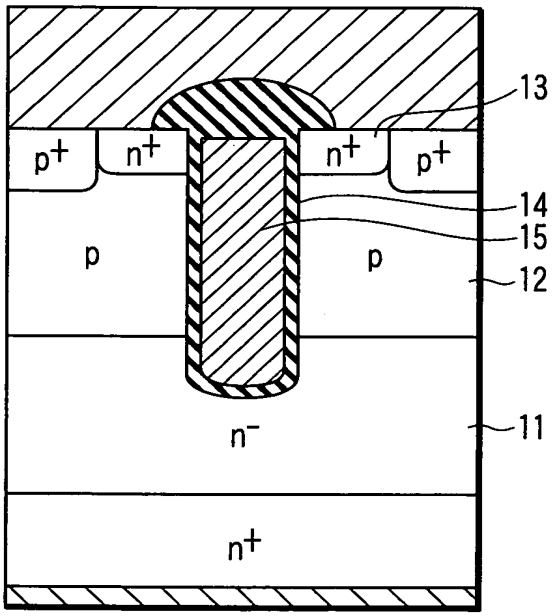

FIG. 30 (PRIOR ART)